

Lessons Learned from the Node 1 Atmosphere Control and Storage and Water Recovery and Management Subsystem Design

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Node 1 flew to the International Space Station (ISS) on Flight 2A during December 1998. To date the National Aeronautics and Space Administration (NASA) has learned a lot of lessons from this module based on its history of approximately two years of acceptance testing on the ground and currently its twelve years on-orbit. This paper will provide an overview of the ISS Environmental Control and Life Support (ECLS) design of the Node 1 Atmosphere Control and Storage (ACS) and Water Recovery and Management (WRM) subsystems and it will document some of the lessons that have been learned to date for these subsystems based on problems prelaunch, problems encountered on-orbit, and operational problems/concerns. It is hoped that documenting these lessons learned from ISS will help in preventing them in future Programs.

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